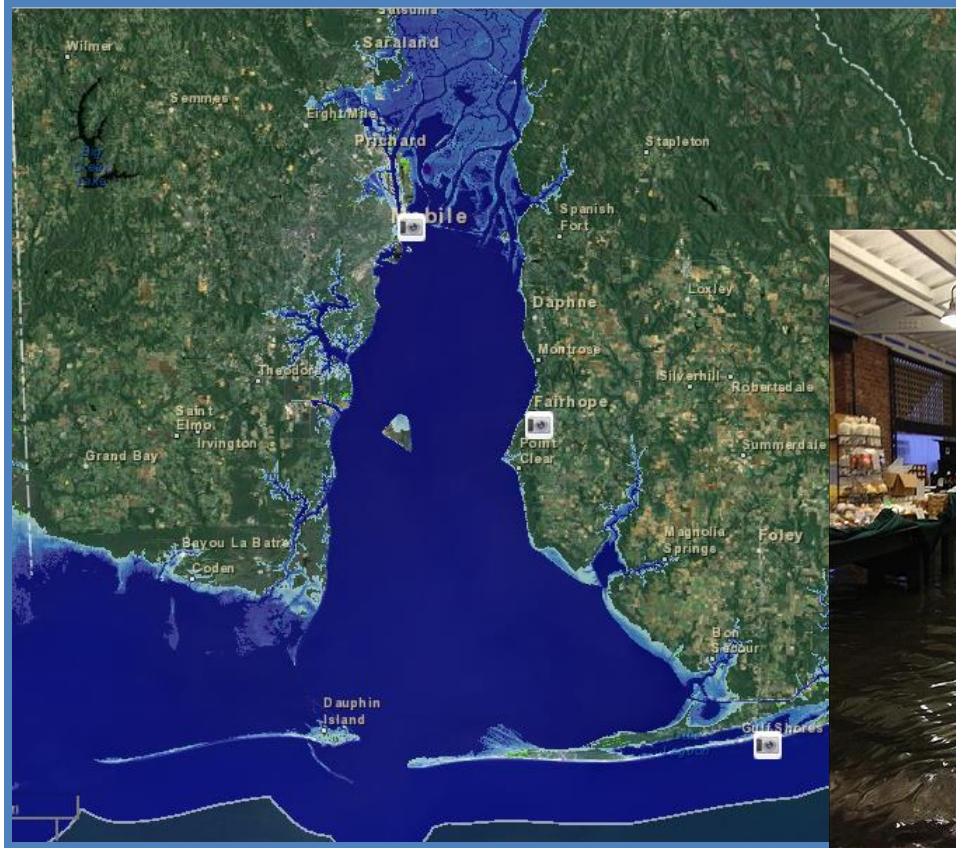


Resources for Coastal Community Resilience

Mary Culver
January 14, 2015



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

What Is Resilience?

- Ability to “bounce back” from a stress or disturbance
- Capacity of an ecosystem to respond to a disturbance by resisting damage and recovering quickly
- Capability of a community or system to bounce back after a disturbance or turbulent change
- Ability to prepare and plan for, absorb, recover from, or more successfully adapt to actual or potential adverse events



Resilience to What?



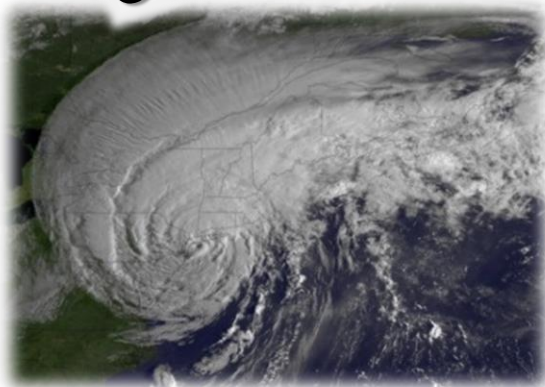
Climate Impacts



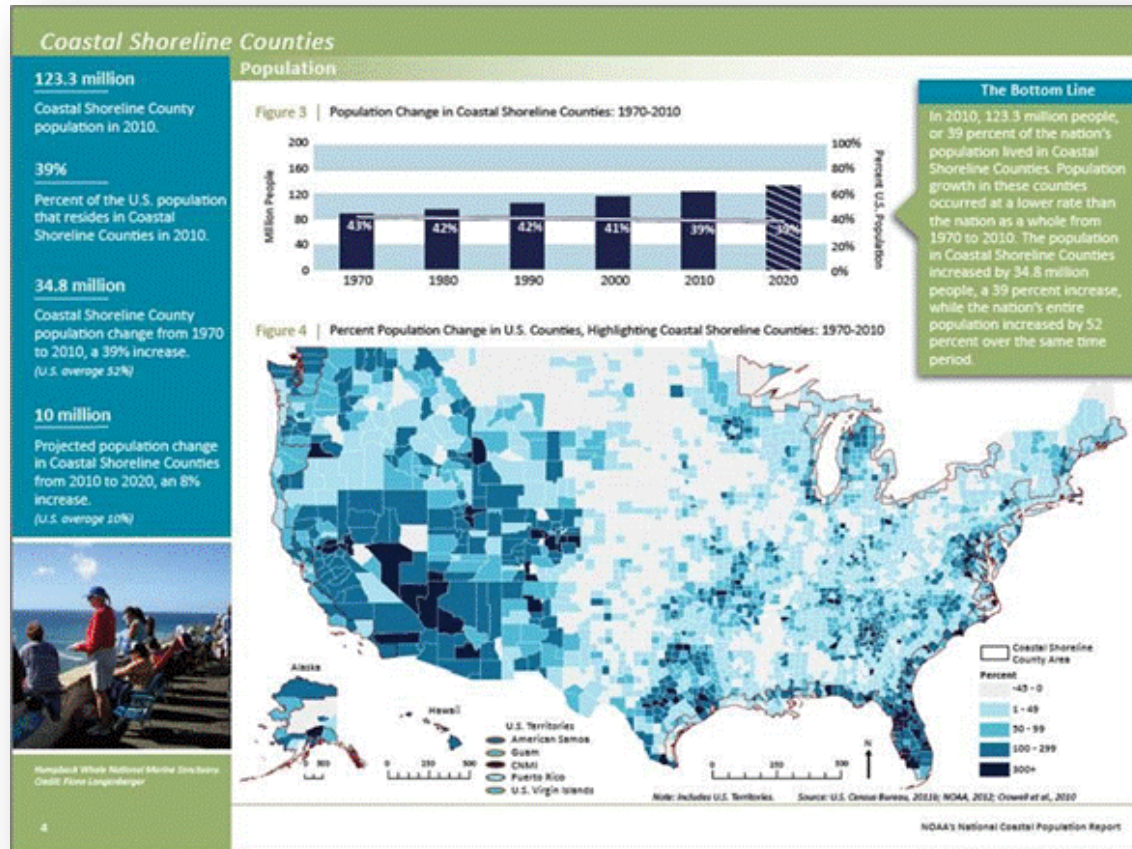
Coastal Hazards



Disasters



Why Are Coastal Communities Talking about Resilience?



Community Resilience Focus

Helping communities

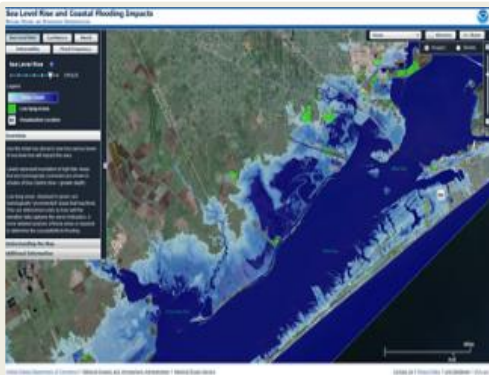
- Plan for impacts
- Pursue sound strategies
- Protect ecosystem services through conservation



Photo Credit: Adam Whelchel, TNC



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Sea Level Rise and Coastal Flooding Impacts Viewer

Coastal County Snapshots



Tools and Training



Climate Adaptation for Coastal Communities

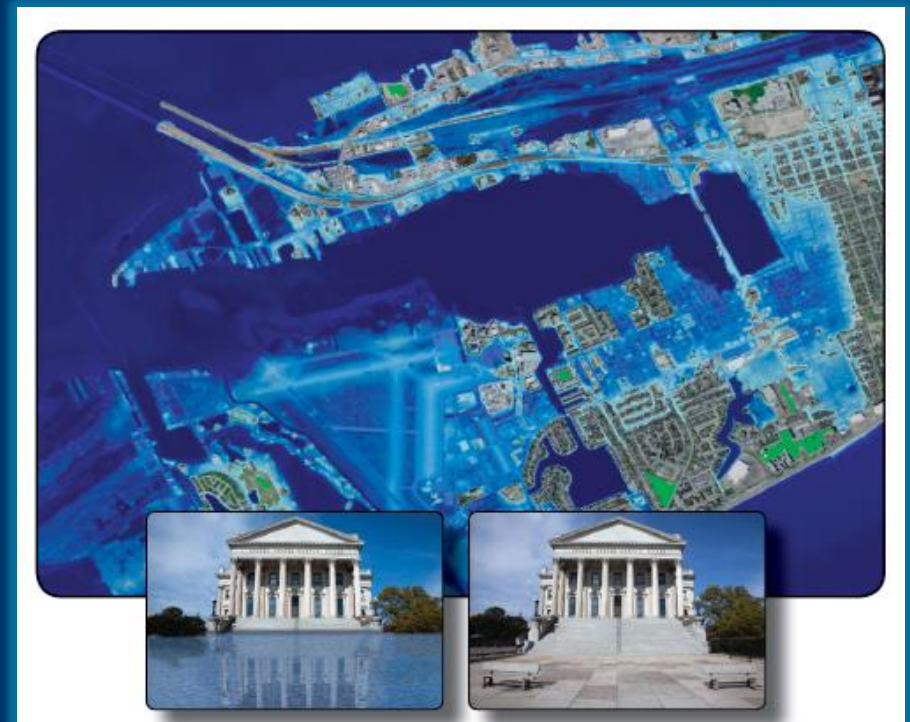


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Sea Level Rise and Coastal Flooding Impacts Viewer

[*coast.noaa.gov/digitalcoast/tools/slr*](https://coast.noaa.gov/digitalcoast/tools/slr)

- **Displays** potential future sea levels
- **Provides** simulations of sea level rise at local landmarks
- **Communicates** the spatial uncertainty of mapped sea levels
- **Models** potential marsh migration due to sea level rise
- **Overlays** social and economic data onto potential sea level rise
- **Examines** how tidal flooding will become more frequent with sea level rise



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State, Regional, and County Needs for SLR and Inundation Planning

- Assistance with collection of consistent, standardized, highly accurate elevation data and avoidance of duplication
- Authoritative information on historical water level trends and vertical datum information
- Methods and standards for mapping coastal inundation
- Simple visualization tools that show potential impacts of SLR or lake level scenarios
- Show how everyday tidal flooding will become worse and more frequent



Who is Using Viewer and Data?

- DOE Facilities Assessment
- Climate Central – Surging Seas
- San Francisco Bay – Adapting to Rising Tides and OCOF
- California Coastal Conservancy
- New Jersey – Rutgers NJ Floodmapper
- South Florida Climate Compact (Seven / 50)
- TNC Coastal Resilience Tool
- U. of Florida and Tampa Bay Regional Planning Council Adaptation Project
- National Park Service Coastal Parks Assessment
- U.S. Army Corps Projects Evaluation
- EPA Climate Ready Estuaries
- HI Sea Grant and U. of Hawaii School of Ocean and Earth Sci. (NOAA Coastal Storms Program)
- PACIOOS
- DOD BRAC
- MIT Rebuild by Design



Climate Resilience Toolkit



U.S. Climate
Resilience
Toolkit

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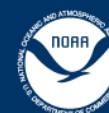
Meet the Challenges of a Changing Climate

The Climate Resilience Toolkit provides resources and a framework for understanding and addressing the climate issues that impact people and their communities.

- 1 Identify the Problem
- 2 Determine Vulnerabilities
- 3 Investigate Options
- 4 Evaluate Risks & Costs
- 5 Take Action



Find Out How People Are Building Resilience



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Training Participants and Partnerships

- Local Government
- State Government
- NOAA
- Other Federal Agencies
- NGO
- Academic
- NERR Coastal Training Program
- Sea Grant
- National Disaster Preparedness Training Center
- National Conservation Training Center
- American Planning Association
- Association of State Flood Plane Managers
- EBM Tools Network

1200
Participants/year



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Coastal Community Resilience Funding Opportunities

(Within the Office for Coastal Management)

Coastal Resilience Networks - To support coastal community adaptation to natural hazards and climate risks

Regional Coastal Resilience

CZMA Section 309 Enhancement Program

309 Projects of Special Merit



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Questions?

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